DOCUMENT RESUME

ED 385 029 EC 304 057

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TITLE	Steps and Practical Guidelines for Developing and Implementing Self-Management Programs for Children's Social Behavior on the Playgrounds.
INSTITUTION	Oregon Univ., Eugene.
SPONS AGENCY	Special Education Programs (ED/OSERS), Washington, DC.
PUB DATE	Feb 95
CONTRACT	H023B30008; H029D40055
NOTE	15p.; In: The Oregon Conference Monograph 1995. Volume 7; see EC 304 046.
PUB TYPE	Speeches/Conference Papers (150) -- Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Behavior Change; *Behavior Problems; Elementary Education; *Interpersonal Competence; Intervention; *Playgrounds; *Program Development; Program Evaluation; Program Implementation; Self Evaluation (Individuals); *Self Management; Skill Development; Social Development

ABSTRACT

This paper offers six steps for developing and implementing a self-management program to improve children's social behaviors on the school playground. Introductory information provides a literature review of self-management strategies and programs. The self-management program recommended is divided into three broad phases encompassing assessment, intervention, and evaluation. The following six steps are detailed: (1) gather information about target behaviors and settings; (2) analyze the information; (3) teach specific interpersonal skills, if necessary; (4) select self-management strategies to teach (such as self-recording, self-evaluation, or self-graphing); (5) implement the self-management program; and (6) evaluate the program. Sample self-recording forms are included. Contains 61 references. (DB)

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ED 385 029

Steps and Practical Guidelines for Developing and Implementing Self-Management Programs for Children's Social Behavior on the Playgrounds

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THERE IS NO QUESTION ABOUT THE IMPORTANCE OF CHILDREN'S SOCIAL SKILLS. ON THE school playgrounds, especially, a child's age-appropriate interpersonal skills play a critical role for his/her meaningful relationship with peers. These social skills provide the child with the channel through which he/she can give and receive positive social rewards, which, in turn, leads to increased social involvement and further positive interaction (Michelson, Sugai, Wood, & Kazdin, 1983). However, children with social skills deficits are likely to be ignored and rejected by their peers in social settings (Carter & Sugai, 1989; Hops, Finch, & McConnell, 1985; Odom, McConnell, & McEvoy, 1992). There is evidence that a child's inability to interact with the peer group may have a profound impact on his or her academic standing and, subsequently, on later career choices and social well-being (Hartup, 1979; Hops, 1982; Horn & Packard, 1985). In fact, researchers consistently have indicated that children with social skills deficits are significantly more vulnerable than their counterparts to various school-related and later social problems (Bender, 1987; Cowen, Pederson, Babigan, Izzo, & Trost, 1973; Hops et al., 1985; Kupersmidt, Coie, & Dodge, 1990; Roff, Sells, & Golden, 1972; Schloss & Schloss, 1987; Ullmann, 1957).

In the past two decades, behavioral interventions aimed at improving the social behavior and peer relationship of students with social skills deficits have shown dramatic increases in number and complexity (Hops, 1982; Michelson, et al., 1983; McEvoy, Odom, & McConnell, 1992). Several different strategies have been used effectively to develop social skills: instruction, modeling, role-playing, positive reinforcement, training in problem-solving skills, and so

EC 304057

This research was supported in part by Grants No. H023B30008 and H029D40055 from the U.S. Department of Education, Office of Special Education Programs, and was co-directed by the present author and Dr. George Sugai. Opinions and statements herein are the express responsibility of the author and do not necessarily represent those of the U.S. Department of Education. Additional information is available upon request from the author.

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on. Despite their effectiveness on skill acquisition, the most consistent problem with social skills training programs has been the maintenance and generalization of learned social skills. An instructional program's usefulness is most limited if the students do not perform their new skills in natural settings or maintain them over time. Researchers (e.g., Berler, Gross, & Drabman, 1982; Walker, McConnell, Walker, et al., 1983) who have applied contingency management systems to enhance the maintenance and the generalization of behavior changes have often failed. The common problem found by those researchers was that the contingency management systems have not been strong enough to facilitate lasting change in the students' social skills.

External management procedures have dominated behavioral interventions for promoting the generalization of the academic and social behaviors of students with special needs (Gardner & Cole, 1989). A typical external agent of managing school programs is a teacher who assumes responsibility for monitoring, evaluating, and reinforcing student behaviors in various school settings where behavioral principles are systematically applied. Externally managed interventions generally require a tremendous amount of teacher time and effort. Although the efficacy of externally managed programs has been well documented, several researchers (e.g., Kazdin, 1975; Kneedler & Hallahan, 1981; Medland, 1990) have argued that teacher-managed, external control techniques promote student passivity, failing to actively involve students in their own behavior change progress. In other words, externally administered contingencies may be ineffective in sustaining students' "motivation" (Stipek, 1993, p. 67). Lepper and his colleagues (Greene & Lepper, 1974; Lepper, 1981; Lepper, Greene, & Nisbett, 1973), furthermore, suggest that simple external rewards for children to engage in tasks may have adverse long-term effects on their task performance that is often in clear contrast to immediate positive effects. Greene and Lepper (1974) said that the use of extrinsic rewards by classroom teachers may negatively affect "children's subsequent intrinsic interest in the activity for which rewards were provided" (p.1141).

Since the early 1970s, various strategies of self-management (e.g., self-monitoring, self-evaluation, self-graphing, self-instruction) have received increased attention as viable techniques for involving students in their own behavior change process and as promising methods for the generalization and maintenance of behavior change (Hughes, Ruhl, & Misra, 1989). Use of self-management procedures has resulted in improvement in academic performance (Glomb & West, 1990; Lalli & Shapiro, 1990) and on-task behavior (Blick & Test, 1987; Lloyd, Bateman, Landrum, & Hallahan, 1989; Sugai & Rowe, 1984). Although academic and on-task behaviors have been the dominant areas with which self-management procedures were used, other non-academic behaviors have not been totally excluded from self-management approach. These non-academic behaviors include appropriate classroom behavior (Rhode, Morgan, & Young, 1983; Smith, Young, West, Morgan, & Rhode, 1988) and vocational behavior (McNally, Kompik, & Sherman, 1984). Researchers (e.g., Kazdin, 1984; Lloyd, Landrum, & Hallahan, 1991; Wolery, Bailey, & Sugai, 1988) believe that teaching self-management skills may increase the effectiveness of an intervention, save teachers' time, and promote the generalization and maintenance of treatment effects. Overall, it is evident that self-management strategies are effective in improving the performance levels of academic and social behaviors of children, if they are used systematically and appropriately.

Generally, self-management is defined as one's ability to engage in those behaviors that facilitate changing or maintaining one's own behavior. Self-management interventions mean teaching students to engage in some

behaviors designed to change or maintain their own behaviors. For example, when children are taught to observe their own behavior and record their observations in a certain way, the self-management procedure can be referred to as self-monitoring. Operationally, self-management interventions on the playgrounds involve teaching a student to engage in certain behaviors (e.g., self-recording, self-evaluation, self-reinforcement, self-graphing, self-talking) in an effort to change the probability of occurrence of a target behavior (Cole & Bambara, 1992; Liberty & Michael, 1985; Nelson, Smith, Young, & Dodd, 1991).

In contrast to externally managed programs, self-management procedures are designed to teach students to manage their own behaviors. In other words, self-management allows the students to function more independently. Not surprisingly, several studies (e.g., Kauffman, Lloyd, & McGee, 1989; Laycock & Tonelson, 1985) report that both regular and special education teachers consider students' demonstration of self-management as a highly desirable characteristic. Although self-management strategies have been widely recommended as promising methods for the acquisition and generalization of various skills, including interpersonal skills, self-management intervention does not appear to be used on a widespread basis in school settings (Cole & Bambara, 1992). Especially, there are few, if any, reports on the use of self-management strategies for children's social behaviors on the playgrounds. It may reflect the lack of clear definition of self-management, sound theoretical foundations, and sufficient empirical support. Above all, it seems apparent that there are few practical guidelines available for teachers and practitioners using self-management strategies for their children's playground behaviors.

Even though dealing with the issues of definition, theoretical underpinning, and empirical evidence is worthwhile, it is beyond the scope of this paper. The main focus of this paper is placed on the practical steps and guidelines for teachers and other practitioners developing and implementing self-management programs for their children's social behaviors on the school playgrounds. Six steps for developing and implementing a self-management program are presented within three broad phases (i.e., assessment, intervention, and evaluation): (a) gathering information about target behaviors and settings, (b) analyzing the information, (c) teaching specific interpersonal skills, if necessary, (d) selecting self-management strategies, (e) teaching self-management skills, and (f) evaluating the program.

Assessment

Conducting assessment is crucial not only because it provides the current performance levels of appropriate/inappropriate behaviors, but also because it defines the range of situations in which the problem behaviors occur, and determines whether a child has a specific skill in his behavior repertoire (Lewis, Heflin, & DiGangi, 1991; O'Neill, Horner, Albin, Storey, & Sprague, 1990; Wolery et al., 1988). Teachers and practitioners can use the assessment information to develop an instructional program and evaluate its effectiveness. Treatment decisions should be made from the assessment information, not from a teacher's "best hunch." In other words, a child-specific intervention program should be developed on the basis of the detailed information about the variables related to or responsible for the child's behavioral problems.

Step 1: Gather Information about Target Behaviors and Settings

In this information gathering step, first of all, target behaviors and settings should be defined operationally. Being defined "operationally" means that target behaviors are clearly stated in observable and measurable terms. Teachers and practitioners are recom-

mended to focus on observable, measurable behaviors and setting variables. For example, when a teacher says that Tommy is extremely aggressive with his peers on the playgrounds, the teacher would describe the behavior more clearly by saying that Tommy hits or pushes other children five times on the average during a 15 minute recess in the jungle gym area. Making an operational definition of target behavior allows a teacher to pay attention directly to students' responses, communicate objectively with other personnel, and measure students' performance reliably (Wolery et al., 1988).

This information gathering step should focus on external environmental events as well as a child's personal characteristics. The information may be obtained through conducting direct observation, reviewing office records, rating behavioral performance, and/or interviewing with significant individuals of the target child. Among these methods, direct observation of children in natural settings is considered as the most powerful technique. In contrast to the other "second-hand" data collecting methods, direct observation allows a teacher to get "first-hand" data through observing students' behaviors and their interactions in the very place where the behaviors are displayed. With this first-hand data collecting procedure, a teacher can increase the objectivity of information. In other words, this "direct" observation reduces greatly the possibility of subjective interpretations which may be easily involved in the process of other data collection procedures such as archival reviews and adult ratings. Even though direct observation often appears to be time-consuming, and even intrusive, it may let a teacher collect behavioral samples from the immediate settings in which the target behaviors occur. The behavioral samples can be used as instructional examples in developing intervention programs for the target child. When data are collected frequently and regularly through direct observation, the data can be used to evaluate a child's performance on an on-going, regular basis, so that a teacher can determine the direction of the child's progress and evaluate the effectiveness of an intervention.

Along with direct observation, other information collecting methods can be effectively used in the frame of a multi-method assessment approach. Review of office records, behavioral rating by teachers, and/or interviews with significant individuals of the target child may provide a broad picture of target problems. Through these procedures, a teacher can get information about setting events related to the occurrence of target behaviors (Sugai & Tindal, 1993). Although setting events are temporally remote from the immediate behavioral context, they appear to influence the occurrence of a behavior. Frustration from math class, for instance, may be functionally related to the occurrence of Tommy's aggressive behavior (i.e., hitting & pushing) during the following recess time on the playgrounds. In addition, information about a child's characteristics (e.g., handicapping conditions, cognitive reasoning skills) should be gathered through the multi-method assessment. Apparently, some self-management strategies are useful only with individuals who possess certain characteristics. For example, the effectiveness of self-instruction which is a cognitive-based self-management strategy is highly dependent on verbal and cognitive reasoning skills.

Step 2: Analyze the Information

One of the primary objectives of assessment is to obtain information from which a child-specific instructional program can be derived. In this step, a teacher is to analyze systematically the collected information and develop an intervention plan based on the analysis. Specifically, a teacher should determine whether predictable relationships exist between a child's behavior and environmental variables (both temporally immediate & remote events). It is recommended that a teacher identify the

communicative function (e.g., getting social attention, escaping from aversive situation) of a problem behavior. For example, Tommy's aggressive behavior (i.e., hitting & pushing others) may function to gain attention from a playground monitor. Once the function of a problem behavior has been known, an effective intervention plan can be developed.

In this information analyzing step, a teacher also should determine whether certain social skills are in the target child's behavior repertoire. In other words, the teacher should determine whether the child's behavioral problems on the playgrounds are due to social skills deficits or performance deficits. For example, if Tommy shows correctly how to respond appropriately to his peers teasing him in a classroom role-play situation but does not perform the behavior on the playgrounds, his interpersonal skill problem may be due to a performance deficit. If Tommy cannot give the socially correct response, his social skill problem is probably due to a skill deficit. In the case of skill deficits, certain social skills should be directly taught.

Intervention

Two important factors of behavior change are the environment and the person. Although there have been numerous theoretical explanations for the effects associated with self-management strategies, most evidence suggests that behavior change is a function of the individual's prior external reinforcement history and observational learning experience (Bandura, 1971; Karoly & Kanfer, 1974; Rimm & Masters, 1979). The search for the determinants of self-effected behavior change should focus on environmental rather than hypothetical events (e.g., "self," "ego strength," "internalization") (Bandura & Walters, 1963; Kanfer, 1975; Rachlin, 1974). Within this framework, either the self-recording responses or self-administered consequences serve as discriminative stimuli.

Step 3: Teach Specific Interpersonal Skills, If Necessary

All instructional decisions should be based on individual student needs. If a child has social skills deficits, he should be provided with direct social skills instruction first. A teacher can either develop social skills lessons or use published curricula. The following are some useful social skills curricula:

- *Skillstreaming* (Goldstein, Sprafkin, Gershaw, & Klein, 1980; McGinnis, Goldstein, Sprafkin, & Gershaw, 1984).
- *Getting Along with Others* (Jackson, Jackson, & Monroe, 1983).
- *The Walker Social Skills Curriculum* (Walker, McConnell, Holmes, et al., 1983; Walker, Todis, Holmes, & Horton, 1983).

Basically, social skills are taught to students in the same way as academic skills. Typical social skills training procedures consist of some combination of instruction (discussion), modeling, role-playing (rehearsal), coaching, performance feedback, and homework. Using a comprehensive training package is assumed to maximize the treatment effects (Christoff & Myatt, 1987). It is recommended that social skills be taught in groups of 3 to 5 students. A teacher may employ some behavior management procedures (e.g., group point system) for the social skills training group. Most importantly, a teacher should focus on the natural context in which his/her students are supposed to use the learned skills. Ideally, social skills should be taught in actual settings. At least, a teacher should make sure that instructional examples/nonexamples are carefully selected from the natural context. It is also important to reinforce a child whenever he uses the learned skills.

Step 4: Select Self-Management Strategies to Teach

Several procedures (e.g., self-instruction, self-selection of consequences, self-determined performance criteria, self-recording, self-punishment, self-evaluation, self-reinforcement,

self-graphing) have been categorized as self-management. Although the procedures are closely related, each has a somewhat different emphasis. Typically self-recording, self-evaluation, self-reinforcement, and self-instruction are identified in the literature (Hughes et al., 1989; Nelson et al, 1991).

Self-recording requires students to assess objectively whether a given behavior or a set of behaviors has occurred and then record its occurrence. It is often the preferred procedure because the technique is quite straightforward and simply requires an individual to self-observe and self-record. Although the procedure was initially used as an assessment technique, many researchers have taken advantage of the reactive effects of self-recording in order to change students' behavior in school settings (Blick & Test, 1987; Lalli & Shapiro, 1990; Lloyd et al., 1989; Sugai & Rowe, 1984). Self-recording procedures are similar to those for data collection (e.g., event recording) and usually consist of making a mark with a pencil on a recording form. On the playgrounds, however, children can be taught to use a counter (e.g., a golf-counter), move an object (e.g., a marble, a penny) from one pocket to another, or get involved in some other action to indicate the occurrence of a certain behavior (e.g., folding a small piece of colored paper). Whatever the students use for self-recording, they must be taught to discriminate the relevant features of the target behavior and determine when, where, and how they should conduct self-recording (Sugai & Tindal, 1993).

Self-evaluation teaches students to compare their behavior to a set of predetermined criteria and make a judgment about the quality or acceptability of the behavior by matching their behavior to the criteria. The criteria can be established by either a child himself or a teacher. Self-reinforcement occurs when students reward or reinforce themselves for performing some behavior. Self-reinforcement is composed of several aspects including self-selecting and self-administering a reinforcer contingent upon meeting some performance standard (Baer, Fowler, & Carden-Smith, 1984; Hayes et al., 1985). Practically speaking, a student can be taught how to engage in self-evaluation and/or self-reinforcement when he is fluent at recording his own behavior (Sugai & Tindal, 1993). Self-instruction is covert language directed toward oneself. A student is trained to make specific self-statements or suggestions that prompt specific kinds of behaviors. Self-instruction programs usually include other components of self-management such as self-recording and self-evaluation.

Even though some researchers used a particular procedure alone (e.g., self-recording in Blick & Test, 1987) as self-management treatment, many studies have evaluated the effects of multiple self-management procedures and/or other external behavior management procedures combined into a package. The packages have been used both as treatment methods to produce behavior change and as strategies to promote maintenance and generalization of behavior gains obtained initially from other externally managed treatment programs (e.g., Agran, Salzberg, & Stowitschek, 1987). A systematic combination of self-management strategies has been suggested by some researchers (e.g., DiGangi & Maag, 1992) to maximize the treatment effects on the generalization of target behavior.

Recently, the present author (Kim, 1995) conducted a research project examining the effects of combined self-management strategies on children's playground social behaviors. In the study, four elementary school children (3rd graders) with social skills deficits were taught, each day for about 15 minutes, how to use a set of self-management skills (i.e., self-recording, self-evaluation, & self-graphing) on the school playgrounds. A model-lead-test format was used to teach these component skills to the children. Each student was given a golf-counter for self-record-

ing and taught how to use it. They were told to observe their own behaviors and add a point by pressing the counter button whenever they follow each rule of previously learned social skills during recess on the playgrounds. At the end of recess, the students were to read the total points appearing on their counters and write them in the score section of the self-management recording sheet (see Figure 1). After recording the number of following social skill rules, the students were told to evaluate their performance with a five level rating scale (i.e., excellent, very good, fair, not good, & very bad). They were to circle one of five faces corresponding to their value. The happiest face means excellent performance and the saddest face represents very bad performance. They were told criteria for self-evaluation before evaluating (see Figure 2). After circling one face, they connected the face to the previous one with a straight line by using a thick, colored pen.

As mentioned in the information gathering step, the usefulness of self-management strategies is often limited by a child's personal characteristics. While some self-management strategies (e.g., self-monitoring) have been used with a wide range of population, others

Self-Management Recording Form

Student:	Behavior:

Date								
Score								
Excellent (80%–100%)								
Very Good (60%–80%)								
Fair (40%–60%)								
Not Good (20%–40%)								
Very Bad (0%–20%)								

Figure 1. Self-management recording form.

Criteria for Self-Evaluation

Level	Criteria
Excellent	Followed rules of social skills (almost) all the time. 80-100% of opportunities.
Very Good	Followed rules of social skills most time (some failures). 60-80% of opportunities.
Fair	Followed rules of social skills some times. 40-60% of opportunities.
Not Good	Not followed rules of social skills many times. 20-40% of opportunities.
Very Bad	Not followed rules of social skills (almost) all the time. 0-20% of opportunities.

Figure 2. Criteria for self-evaluation.

(e.g., self-instruction, self-reinforcement) have been employed only with certain groups of children. By their very nature, for example, cognitive-based self-management strategies require that students already possess particular skills such as verbal and cognitive reasoning skills. Obviously, very young children or students with cognitive disabilities are not likely to benefit from these strategies in the same way as adolescents or regular education children. Even with contingency-based strategies, a teacher should always be ready to modify self-management procedures according to the child's age, ability level, and other conditions.

It is notable that not all students would respond positively to self-management procedures. For some children, self-management activities may be a distraction interfering with their behavioral performance; whereas, for others, self-management procedures may appear to be a reinforcing activity. To date, unfortunately, there is little empirical evidence revealing what specific individual variables are related to or responsible for the effectiveness of self-management intervention. Thus,

along with assessment information, some pilot trials of certain procedures on the playgrounds may be helpful in selecting specific intervention strategies for a child.

Step 5: Implement Self-Management Program

In implementing self-management intervention programs, a teacher can modify the procedures in several ways. First of all, a teacher may compare student self-recording and/or self-evaluation with those of him/her. The purpose of this matching technique is to have students learn the process of self-management based on the expected performance level of their teacher. Even though the accuracy in self-recording and self-evaluation may not necessarily result in the improvement of student social behavior (Lloyd et al., 1991), at least it can allow a teacher to be sure that his/her students know what, when, and how to observe, record, and evaluate their own behaviors. The matching procedure developed by Rhode et al. (1983) appears to be useful. Although the procedure was included in their self-management intervention package for classroom rule-following behavior, it can be applied to playground interpersonal behavior with or without minimum modification. In their matching procedure, each student is awarded points (token reinforcement) when his rating matches within the acceptable level of teacher rating. If a student's rating is exactly the same as that of the teacher, the student is awarded a bonus point. Once the students establish acceptable levels of accuracy, the matching procedure is systematically eliminated. The token reinforcement system (point exchange for backup rewards) is also gradually faded out.

In contrast to traditional teacher-managed programs, self-management interventions are designed to help students play a central role in their own behavior change process. The successful implementation of self-management programs is heavily dependent on students' active participation. Therefore, a critical task of a teacher may be to motivate the students to actively participate in the self-management activities. It is important to note that, especially in the early phase of self-management interventions, a teacher should establish incentives for self-management responses and social behavior changes. The teacher also should make sure that natural environments do support and reinforce the behavioral changes of his students on the playgrounds. Without the environmental support, lasting behavior changes cannot be expected.

Students must have a clear idea of the required self-management responses on the playgrounds. The self-management skills should be directly taught in the same way as other academic skills or social skills. As mentioned in earlier steps, each self-management skill should be systematically instructed through accurate modeling and sufficient practice. In addition to initial instruction of self-management, periodic booster sessions may be needed for some students. Self-management programs must be simple and easy to teach, but powerful. It is important that the self-management procedures are age-appropriate and motivating to the students. In Kim's study, for example, the self-recording/self-evaluation sheet functions simultaneously as a graph. The students (3rd graders) in the study used thick, colored pens to connect the faces they chose through self-evaluation. Figure 3 shows a sample self-management recording form filled with fictitious information.

Evaluation

Once a self-management intervention program is implemented, a teacher should determine whether the program is effective. Both empirical outcomes and qualitative reports may be used to evaluate the intervention success.

Self-Management Recording Form

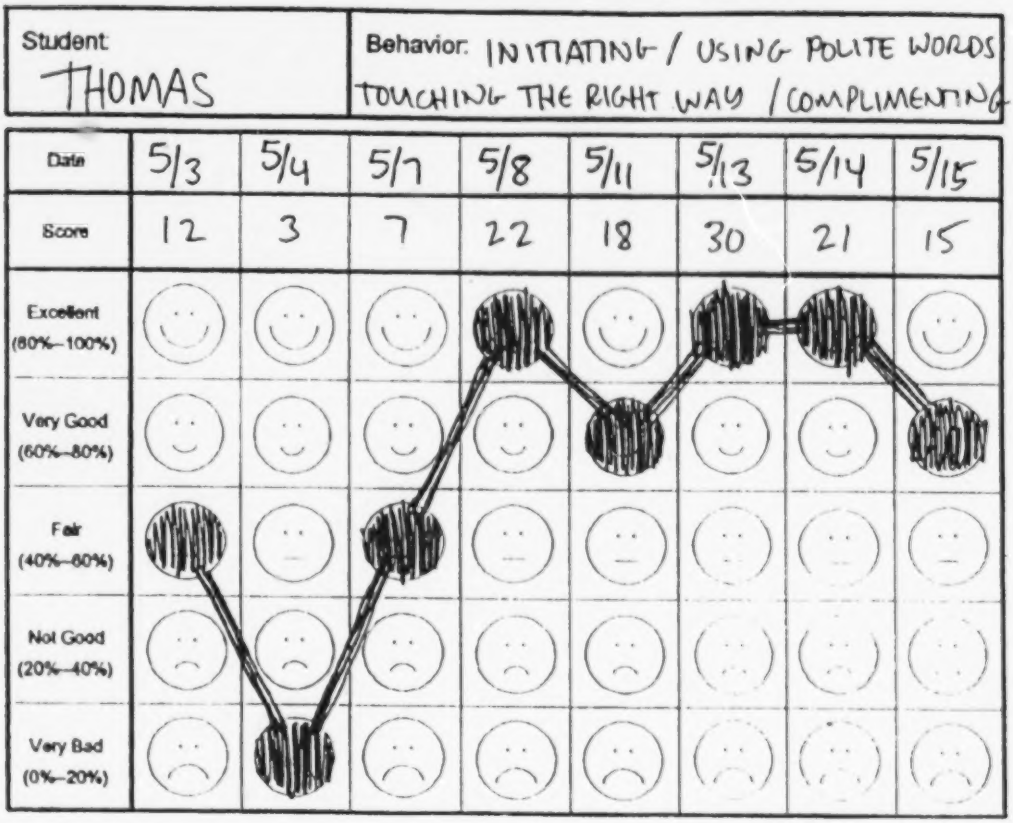
Student: THOMAS
Behavior: INITIATING / USING POLITE WORDS TOUCHING THE RIGHT WAY / COMPLIMENTING
Date 5/3 5/4 5/7 5/8 5/11 5/13 5/14 5/15
Score 12 3 7 22 18 30 21 15
Excellent (80%–100%)
Very Good (60%–80%)
Fair (40%–60%)
Not Good (20%–40%)
Very Bad (0%–20%)

Figure 3. Self-management recording form completed with ficticious information.

Step 6: Evaluate the Program

It is recommended that a teacher assess the student's progress on a formative basis (Sugai & Tindal, 1993). That is, the teacher should collect student performance data on a continuous basis. By doing that, the teacher may make systematic data-based decisions on an ongoing basis (Tawny & Gait, 1984). With continuous direct observation data, the teacher can visually analyze the data patterns (i.e., trend, level, & variability). Conducting the visual analysis enables a teacher to closely monitor the direction, magnitude, and stability of the data, and make timely adjustments to the intervention program if necessary.

The overall effectiveness of intervention can be evaluated by significant individuals of the student. Teachers, playground monitors, peers, and even the student him/herself may assess the appropriateness of the program procedures and outcomes. A teacher may compare the new levels of the student's social behavior to the performance levels of immediate peers as well as general population.

Summary

In contrast to externally managed programs, self-management procedures are designed to teach students to manage their own behaviors. Self-management interventions on the playgrounds involve teaching a student to engage in certain behaviors (e.g., self-record-

ing, self-evaluation, self-graphing) in an effort to change the probability of occurrence of a target behavior. Self-management strategies are relatively easy to use. If they are used systematically and appropriately, self-management strategies may produce lasting social behavior changes and save teachers time.

The present paper was devoted to provide the practical steps and guidelines for teachers and other practitioners developing and implementing self-management programs for their students' social behaviors on the school playgrounds. Teaching self-management skills directly and assessing social behavior on an ongoing basis have been emphasized throughout the six steps for developing and implementing a self-management program. The steps include (a) information collection, (b) information analysis, (c) interpersonal skills instruction, (d) self-management strategy selection, (e) self-management intervention implementation, and (f) program evaluation.

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